Form-Meaning-Mismatches workshop 2018

Abstracts

July 18, 2018

Friday, 3 August 2018

9.30–10.45 Hilda Koopman (UCLA)
Towards resolving some form-meaning mismatches: The central role of Ps in the syntactic derivation

10.45–11.00 *break*

11.00–11.40 Jon Ander Mendia (Düsseldorf)
The anatomy of some *wh*-constructions

11.40–12.20 Carlos Muñoz Pérez (Buenos Aires/Newcastle)
Headless XP-movement leads to ambiguity

12.20–13.45 *lunch break*

13.45–14.25 Giorgia Zorzi (Pompeu Fabra, Barcelona)
ϕ-feature mismatch in gapping in Catalan Sign language (LSC)

14.25–15.05 Cornelia Loos (Göttingen)
Approaching the semantics of concealed causatives: Evidence from resultative constructions in English and American Sign Language (ASL)

15.05–15.20 *break*

15.20–16.00 Julie Goncharov (Jerusalem/Göttingen)
Seeing the unseen: Exh and Int

16.00–16.40 Jovana Gajić (Göttingen)
Negative coordination and its underlying structure: a cross-linguistic puzzle

16.40–17.00 *break*

17.00–18.15 Hubert Truckenbrodt (ZAS/HU Berlin)
Form-meaning mismatches in the system of German sentence types and verbal moods (joint work with Frank Sode)

19.30 *dinner at Bar Celona*

Saturday, 4 August 2018

10.00–10.40 Jamie Y. Findlay (Oxford), Sascha Bargmann & Manfred Sailer (Frankfurt/M)
Pulling a pretence rabbit out of the hat

10.40–11.20 Kathleen Schumann (Potsdam)
With or without: How semantic bleaching causes form-meaning mismatches – The German particle *so* as a test case

11.20–11.35 *break*

11.35–12.15 Callum Hackett (Newcastle)
On the insufficiency of form to determine meaning

12.15–12.30 *break*

12.30–13.45 Vera Hohaus (Tübingen) & Amy Rose Deal (Berkeley)
Mapping form to meaning in degreeless languages: The case of covert comparative operators

Abstracts

Hilda Koopman (UCLA)
Towards resolving some form-meaning mismatches: the central role of Ps in the syntactic derivation.

In sentences like (1), a quantified DP within a DP internal PP can take wide scope, and bind a pronoun, a phenomenon known as inverse linking (May 1985, Larson 1985, among others).

(1) some senator from every city despises it

Inverse linking provides strong motivation for a theory of QR where the quantifier is pronounced in a lower syntactic position than where it is interpreted. It poses a serious problem for a theory where quantified phrases are never pronounced lower than the position where their scope is determined as proposed in Kayne (1998, 2000). The argument for low spell out of the quantifier in (1) depends on our understanding on how the surface constituent structure in (1) is built: is the PP E-merged internally to the DP, or is it in fact the output of a more complex syntactic derivation, and if so, how to support this syntactic derivation? I will examine the broader syntactic distribution and behavior of PP internal to DPs in Dutch and German, in particular with respect to PP scrambling, PP extraposition, and sensitivity to the individual type of P in these phenomena. The analysis I will motivate for these properties, builds on (functional) P as probes merged in the spine (Kayne 2000, and later). It will be shown to extend to particular contexts like (1), demonstrating that the QPs do indeed occupy an overt scope position. The independently motivated syntax of Ps thus plays a central role in resolving form-meaning mismatches in (1).

Hubert Truckenbrodt (ZAS/HU Berlin), with Frank Sode
Form-meaning mismatches in the system of German sentence types and verbal moods

The talk presents work with Frank Sode about interpreted and uninterpreted aspects of German finite verbs in situ and in C and the interaction of verb position with different verbal moods. We structure our points using an abstract element in C: An index for an anchor <x,t,w>, a feature for whether this anchor is identical to the actual context of speech or not, and a feature distinguishing doxastic vs. bouletic modal interpretation. The talk draws on a joint paper of ours, which is in press, and which is available upon request by e-mail.

Vera Hohaus (Tübingen) & Amy Rose Deal (UC Berkeley)
Mapping Form to Meaning in Degreeless Languages: The Case of Covert Comparative Operators

In this talk we discuss crosslinguistic variation among degreeless languages. We begin with a detailed look at comparison in Nez Perce, arguing for a degreeless analysis following Klein (1980, 1982). Nez Perce differs from other degreeless languages like Motu (Beck et al. 2009) and Washo (Bochnak 2015) in that its comparative does allow for crisp judgments but is not norm-related. We explain this variation by recourse to a (sometimes covert) Klein-style comparative operator present in Nez Perce but absent in Motu and Washo. One consequence is that unmarked adjectives may be either positive or comparative; another is that positive adjectives may be either formally simplex or complex.

The anatomy of some *wh*-constructions

Jon Ander Mendia Heinrich Heine Universität Düsseldorf

Introduction. Some constructions seem to live a dual life in that a single surface form can nevertheless be interpreted as being nominal (DP) or propositional (CP). Chief among these are *wh*-constructions (*Wh*Cs), which may alternate between free relatives and questions, and definite relative clauses (i.e. of the form *the NP CP*), which can be often interpreted as definite descriptions or as concealed questions (e.g. Grimshaw 1979). For each of these two constructions, syntacticians and semanticists alike have tried to understand the connection between their nominal *vs.* propositional nature, but the alternations have nevertheless been studied mostly in isolation from each other. My goal in this paper is to show that, rather than considering *Wh*Cs and definite relative clauses as separate constructions altogether, we should better think of them as representing different points along the same continuum. **Background**. There is a close resemblance between free relatives and subordinate questions in English. The main differences between the two constructions amount to: (*i*) the feature specification of the C° head and (*ii*) the type of operator that mediates between the CP and the rest of the clause. While subordinate questions require a [+Q] C° that introduces the semantic nucleus (e.g. Karttunen 1977 a.o.), a free relative relies on simple abstraction (e.g. Chomsky 1977, Heim & Kratzer 1998). Given the common assumption that *wh*-words in free relatives and questions make the same semantic contribution (e.g. Caponigro 2004), the resulting denotation at the CP-level is similar in the two cases: a property of individuals for free relatives, and a property of propositions for subordinate questions. Since with these denotations they cannot compose further with the rest of the clause, the two constructions need a shift: a null definite determiner for free relatives (e.g. Caponigro 2002) and an ANSWERHOORD operator contributing Russell's ι-operator (Dayal 1996) for subordinate questions. In contrast, definite relatives differ from these two constructions in that the semantic lowering is carried out overtly, and the *wh*-operator responsible for carrying the relativization/abstraction operation is null. Schematically:

(1) a. $[_{CP}$ ANS $[_{CP}$ [WH (NP) $]_i$ [C°[+Q] ∅ $[_{TP} \ldots t_i \ldots]]]]$ [Question]
b. $[_{DP}$ $D_{\varnothing}$ $[_{CP}$ [WH (NP) $]_i$ [C°[+REL] ∅ $[_{TP} \ldots t_i \ldots]]]]$ [Free Relative]
c. $[_{DP}$ D $[_{NP}$ [Op_{wh} NP $]_i$ [C°[+REL] (that) $[_{TP} \ldots t_i \ldots]]]]$ [Restrictive Relative Clause]

Questions. More interesting than their differences are the similarities between the constructions in (1): the three of them share an ι-operator, a *wh*-operator and a C° head with variable specification, varying mainly on the (c)overtness of these pieces. This state of affairs raises two main questions: (*i*) Why can't ANS/$D_{\varnothing}$ be overt in Questions/Free Relatives as it is in (1c)? (*ii*) Why can't WH be covert in Questions and Free Relatives, as in Op_{wh}? **Main claim**. My goal is to show that, even they may not resemble so on the surface, there are indeed cases where we find overt ANS operators in Questions and overt determiners in free relatives; i.e. I claim that some of the missing links in the paradigm in (1) are in fact attested. Concretely, I argue that Spanish allows the following two syntactic configurations:

(2) a. $[_{DP}$ D $[_{CP}$ [Op_{wh} Pred $]_i$ [C°[+REL] ∅ $[_{TP} \ldots t_i \ldots]]]]$ [cf. (1b); Free Relative]
b. $[_{CP}$ D $[_{CP}$ [Op_{wh} NP $]_i$ [C°[+Q] that $[_{TP} \ldots t_i \ldots]]]]$ [cf. (1a); Question]

Case study I: (2a). Spanish is well-known for not allowing ordinary free relatives with the *wh*-phrase *what*; instead, free relatives of this kind must be formed by combining a CP with the definite article *lo* (Plann 1980 amo.).

(3) *Juan comió* $[_{DP}$ *lo que quiso*] 'Juan ate {what/as much as} he wanted'
Juan ate D.NT that wanted [Lit.: 'Juan ate the that wanted']

Less known is the ability of Spanish to form Degree Neuter Relatives (e.g. Rivero 1981, Ojeda 1982, a.o.), an unusual construction involving a relative clause seemingly headed by a gradable predicate and the neuter determiner *lo*.

(4) *Juan es* $[_{DP}$ *lo alto que era su padre*] 'Juan is as tall his father was'
Juan is D.NT tall that was his father [Lit.: 'Juan is the tall that his father was']

I suggest that Degree Neuter Relatives should be regarded as sharing properties both with ordinary free relatives in (3)–the overt D-head–and free relatives with quantity *wh*-words like *cuan* below–the ability to pied-pipe a predicate.

(5) *Juan es cuan alto fue su padre* 'Juan is as tall as his father was'
Juan is how tall was his father [Lit.: 'Juan is how-much tall his father was']

The syntactic configuration that I suggest for (4) corresponds to that of (2a): like ordinary free relatives in (3), both constructions involve an overt definite determiner. Both also involve the movement of a *wh*-phrase to the specificer of CP, but in the case of Degree Neuter Relatives, the *wh*-phrase is headed by a null variant of a quantity-*wh*-phrase and includes the gradable predicate, just like its overt variant in (5). Thus, on this analysis, the head of the Degree Neuter Relative is not in fact a gradable predicate as it appears, since the predicate is instead embedded within a complex *wh*-phrase. This provides an explanation for two puzzling facts. First, unlike ordinary restrictive relatives, Degree Neuter Relatives show a disrupted agreement pattern: the definite article *lo* never agrees with what is seemingly the head of the relative clause (6a); in contrast, the gradable predicate alway must agree with CP-internal material (6b).

(6) a. { *lo* / **la* } *alta* *que era su madre*
D.NT D.FM.SG tall.FM.SG that was her mother.FM.SG
b. *lo* { **alto* / *alta* } *que era su madre*
D.NT tall.MS.SG tall.FM.SG that was her mother.FM.SG

Second, predicates of any syntactic category that are coercible into a gradable interpretation are grammatical. Given that predicates of different categories are otherwise extractable to differing degrees in Spanish, this flexibility is puzzling if the predicates themselves were undergoing movement. On the present analysis, however, this issue does not arise–all of the constructions in (7) involve movement of a *wh*-phrase. (The paper provides a full semantic analysis as well.)

(7) a. *lo* { *rápidamente* / **ayer* } *que llegó* ADVERBIAL
D.NT rapidly yesterday that arrived [how {fast / yesterday} she arrived]
b. *lo* { *en punto* / **desde casa* } *que llegó* PREPOSITIONAL
D.NT on point from home that arrived [how {punctually / from home} she arrived]

Case study II: (2b). Spanish allows a construction, known as Emphatic Relatives, that have the surface appearance of ordinary restrictive relatives, but differ in two crucial respects: (*i*) they may appear as a complements to clause-embedding predicates (*sensu* Lahiri 2002), and (*ii*) they are not interpreted as denoting individuals, but as questions.

(8) { *Sé* / *Me pregunto* } *las manzanas que trajo Juan*
know me ask the.FM.PL apple.FM.PL that brought Juan
'{I know/I wonder} what apples Juan brought'

I show that the Emphatic Relatives do not share, despite appearances, the same syntactic distribution of DPs modified by restrictive relatives. I present some arguments here (more in the paper). First, Emphatic Relatives are grammatical under rogative predicates like *wonder*, unlike DPs interpreted as concealed questions (e.g. **I wonder the capital of Italy*; same judgment in Spanish). Second, generally, DPs modified by relative clauses share the syntactic distribution of unmodified DPs. This is unlike Emphatic Relatives, for which the *que*-clause is obligatory.

(9) a. { *Sé* / *Me pregunto* / *Te dije* } *las manzanas* **(que trajo Juan)* ✘*no que-clause*
b. *Yo ví las manzanas (que trajo Juan)* ✓*no que-clause*
I saw the.FM.PL apple.FM.PL that brought Juan
'I saw the apples (that Juan brought)'

Third, like questions and exclamatives, Emphatic Relatives show obligatory SV-inversion. With restrictive relatives, however, SV inversion is optional (just like in declarative sentences).

(10) a. *{ *Sé* / *Me pregunto* } *las manzanas que Juan trajo* ✘*no SV-inversion*
know wonder the.FM.PL apple.FM.PL that Juan brought
b. *Yo ví las manzanas que Juan trajo* ✓*no SV-inversion*
I saw the.FM.PL apple.FM.PL that Juan brought

And fourth: animate objects in Spanish trigger DOM-marking, by means of the preposition *a*. Whereas DPs modified by restrictive relatives trigger DOM, surface-identical Emphatic Relatives do not.

(11) a. *Estudian los delegados que enviarán* ✘DOM
evaluate.3.PL the.MS.PL representative.MS.PL that send
'They are evaluating what representatives they will send.3.PL'
b. *Estudian a los delegados que enviarán* ✓DOM
evaluate.3.PL to the.MS.PL representative.MS.PL that send
'They are evaluating the (individual) representatives they will send.3.PL'

Thus, it seems that Emphatic Relatives cannot be subsumed under restrictive relatives. I propose that the syntactic structure of Emphatic Relatives involves a null *wh*-operator moves to [Spec, CP], checking a [WH] feature on C°[+Q], which hosts Karttunen's (1977) question nucleus. Moreover, the definite article is a lexicalized variant of Dayal's (1996) ANS-operator. Thus, Emphatic Relatives have underlyingly interrogative syntax and they denote a subordinate question. More specifically, they correspond to one of the cases missing in the paradigm of (1), as represented in (2b). (The full paper shows that their distribution is that of subordinate questions and provides a semantic analysis.)

Discussion. The two constructions discussed here–Degree Neuter Relatives and Emphatic Relatives–support the existence of two missing links in the paradigm of *wh*-constructions in (1), simply by assuming variation in terms of the (c)overtness of their composing parts. These results support, among other things, the expected convergence between definite articles (as *ι*-operators; e.g. Link 1983) and maximality operators, which share the semantic task of extracting maxima out of an ordering of atoms, be it individuals, degrees (e.g. Rullmann 1995), or propositions (e.g. Dayal 1996).

Headless XP-movement leads to ambiguity

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Introduction and claim. According to Takano (2000), remnant movement of an XP is impossible if X^0 has been already extracted from XP. Both Takano (2000) and Funakoshi (2012) claim that this follows from narrow syntactic mechanisms. In this paper, I argue that such a restriction follows from a mismatch at the syntax-phonology interface. The empirical domain from which this conclusion is drawn is *emphatic doubling* in Rioplatense Spanish.

(1) Compré el auto, compré.
bought.1SG the car bought.1SG
'I bought the car!'

I show that Headless XP-movement is problematic because it is predicted to lead to an ambiguous mapping between syntactic and phonological representations, i.e., the surface form ends up corresponding with more than one phrase marker. While the derivation of (1) goes along these lines, I argue that Rioplatense Spanish applies in this case a repair strategy to solve the syntax-PF mismatch: pronouncing the head X^0 of the otherwise headless XP.

The syntax of emphatic doubling. Saab (2008) proposes that emphatic doubling involves (i) V-movement to C^0 passing through Σ^0, and (ii) focus fronting of ΣP to Spec,C. The leftmost verb in (1) corresponds to an overt realization of Σ^0 in (2).

(2) $[_{CP}\ [_{\Sigma P}\ \underbrace{\Sigma^0}_{compré}\ [_{TP}\ \cancel{T}^0\ [\upsilon P\ \cancel{\upsilon}^0\ [_{VP}\ \cancel{V}^0\ \underbrace{DP}_{el\ auto}\ ]]]]\ [_{C'}\ \underbrace{C^0}_{compré}\ \cancel{\Sigma P}]]$

This is the type of derivation that Takano (2000) and Funakoshi (2012) argue to be impossible due to narrow syntactic restrictions. There are reasons, however, to reject this claim and maintain that emphatic doubling has precisely this structure. First, both verbs must be morphologically identical, which seems to indicate that they are copies. As Saab points out, even clitics (by assumption, heads incorporated to T) must be doubled in both verbs.

(3) Lo atamos con alambre, *(lo) atamos/*até.
CL.ACC tie.1PL with wire CL.ACC tie.1PL/tie.1SG
'We tie it with wire!'

Second, both verbs must occupy a position at least as high as Σ^0, as negation may appear in the construction in certain contexts.

(4) No vas a la fiesta, no vas.
not go.2SG to the party not go.2SG
'You are not going to the party!'

Third, the constituents following the leftmost verb must appear in their canonical order, e.g., V-DO-IO in case of a ditransitive verb. This kind of order restrictions are independently attested in other cases of remnant movement (e.g., Müller 2017).

(5) a. Le dimos el regalo a Cosmo, le dimos.
CL.DAT gave.1PL the present to Cosmo CL.DAT gave.1PL
'We gave the present to Cosmo!'
b. ?? Le dimos a Cosmo el regalo, le dimos.

Fourth, no arguments or adjuncts other than clitics may appear around the rightmost verb; this is taken to confirm that it is as a stranded complex head.

(6) Vino Cosmo, vino (*Cosmo/*ayer).
came.3SG Cosmo came.3SG Cosmo/yesterday
'Cosmo came!'

Multiple copy spell-out as a repair strategy. Under standard assumptions on chain resolution, the head Σ^0 in (2) should remain silent. This leads to a PF representation that is identical to the one that would be obtained by fronting the object DP *el auto* 'the car' instead of the full ΣP.

(7) (φ El auto), compré.
the car bought.1SG
'THE CAR, I bought.'

This case of ambiguity is different from more traditional examples of syntactic ambiguity (e.g., *the man saw the girl with the telescope*). In this case there is no prosodic cue that could distinguish between both underlying syntactic representations. Moreover, emphatic doubling is felicitous in many contexts in which a regular focus fronting construction would be expected. For instance, both (7) and (1) could be used to answer a question like *what did you buy?*

In order to avoid this type of ambiguity, I propose that Rioplatense Spanish applies a repair strategy at PF: pronouncing the complex head Σ^0, as already sketched in (2).

Prediction: no mismatch, no doubling. Saab (2008) observes that the verbs in the construction cannot be adjacent, i.e., at least an XP must appear at the right of the first verb.

(8) Llovió *(ayer), llovió.
rained.1SG yesterday rained
'It rained yesterday!'

This property follows from the proposed analysis. If there is no overt XP in the domain of ΣP, then no constituent is able to generate the type of ambiguity illustrated in (7). Therefore, pronouncing the complex head Σ becomes unnecessary.

Extending the analysis to German complex prefields. German is one of the languages that have been argued to exhibit the Headless XP-movement restriction.

(9) * [$_{VP}$ Ihr ein Buch t^i]^j gab^i Hans t^j.
her a book gave Hans
'Hans gave her a book.' (Haider 1990, as cited in Takano 2000:145)

However, further research has shown that constructions like these are indeed attested under certain conditions. As Bildhauer & Cook (2010) observe, they require a context favouring a full predicate in the prefield, e.g., in case of presentational sentences.

(10) [Stets] [einen Lacher] [auf ihrer Seite] hatte die Bubi Ernesto Family.
always a laugh on their side had the Bubi Ernesto Family
'Always good for a laugh was the Bubi Ernesto Family.' (Bildhauer & Cook 2010:69)

Headless VP-movement is also taken to generate an ambiguous output in German. Out of context, these sentences are interpreted as involving fronting of one or more verbal arguments/adjuncts; if the VP contained more than one dependent constituent (e.g., 9), then the sentence is taken to be unacceptable due to a violation of V2. However, the relevant pragmatic context allows disambiguating and picking the underlying representation involving VP-movement (e.g., 10).

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φ-features mismatch in gapping in Catalan Sign Language (LSC)

Giorgia Zorzi (Universitat Pompeu Fabra)

Introduction. In the analysis of the identity relation between an elided phrase and its antecedent, several cases of feature mismatches have been identified in ellipsis, also involving φ-features. In the resolution of ellipsis, φ-features have been commonly considered irrelevant for the identity condition (Merchant 2006), contrary to categorial and selectional ones. For American and French Sign Languages (ASL and LSF), Schlenker (2014) analyses two specific feature types on *loci*, namely locations in signing space corresponding to discourse referents. As φ-features in spoken languages, they remain unspecified in ellipsis constructions. The ones he considers are [plural] and [high]. The former is used to agree with a plural argument and the latter with referents whose height is relevant in the context and marked in the signing space for the verb to agree with. This paper aims to describe the φ-features mismatch in gapping in Catalan Sign Language (LSC), considering also classifier (CL) constructions, in order to draw an across-modality parallelism. Moreover, following Bošković (2008), I will provide a classification for the types of φ-features that undergo mismatch in LSC.

Agreement and features in Sign Languages (SL). Recent accounts of agreement in SL follow a minimalist approach (Pfau et al. 2018; Costello 2016) and they assume that in SL agreement verbs move to T via φ-feature checking. In SL three main classes of verbs have been identified: a) plain verbs, which do not agree in space with the arguments, b) agreement verbs, which agree with subject and object, and b') spatial verbs, which agree in space with locative referents. The main φ-features considered in SL are [number], [person] and [location]. I consider [location] as realized on the horizontal plane and separated from [person], in opposition to Costello (2016). Moreover, [person] will be realized in the agreement with both animate and inanimate referents. In turn, Schlenker (2014) specifies the presence of [plural] and [high] in ASL and LSF. They are considered φ-features because they are not interpreted in ellipsis resolution. Barberà (2016) confirms the presence of these two features also in LSC and she argues that also specificity and hierarchical position are marked in space in LSC. The activation of a high portion of the signing space on the vertical plane can mark lack of specificity and a high position in the social hierarchy. Following Barberà (2014), [high], then, marks iconicity, non-specificity, hierarchical position and location, when agreeing with a referent located on the vertical plane. [High] is in contrast with [low] or [normal], depending on the context. [Plural] is opposed to [singular]. [Person], instead, takes different indexes.

Classifiers as agreement in LSC. Other features are claimed to be markers of agreement when using verbal classifiers (CL) in SL. There are different types of CL that can be used as verbal CL adding movement to them: a) whole entity, where the handshape stands for a whole entity, b) handling, where the handshape represents the way of holding a referent, and c) body part, where the hand refers to a part of the body. For the first two types, Glück and Pfau (1997), looking at German Sign Language (DGS), argue that they are not a case of noun incorporation as previously claimed for Israeli Sign Language by Meir (1999), but instances of agreement. Following Glück and Pfau (1997), I argue the same also for verbal CL in LSC considering that the φ-feature involved is [size/shape]: the handshape of the verbal CL gives information about the dimension and the shape of the arguments it agrees with.

1st classification of φ-features. In LSC, some φ-features are not necessarily expressed on the verb: a) [size/shape], since a citation form of the verb can be used; b) [high]/[low/normal] for hierarchy and iconicity do not need to be expressed since the relation between the arguments is still kept by the feature [person].

[plural]/[singular], [person], [location] and [high]/[low/normal] for specificity and location, instead, need always to be expressed on the verb. It is then possible to identify two classes of φ-features, the ones that are optionally expressed on the verb and the obligatory ones. All these features can be expressed agreeing with the subject, the object or a directional argument.

Gapping in LSC and φ-features mismatch. In LSC, despite being an SOV language, the verb can only gap forward (SOV-SO). In gapping in SLs, the presence of an overt NP argument in the second conjunct makes clear the φ-feature contrast between the two conjuncts, especially when there is agreement with the object. As in the English example (1), gapping in LSC shows φ-features mismatch for all the features listed in the section above, for both categories. See in (2) and (3) the mismatch present independently of the category. In (2) there are [plural]/[singular], [person], [location] and [high]/[low/normal] for specificity and location, for the obligatory class. In (3), [size/shape], [high]/[low/normal] for hierarchy and iconicity are presented for the optional class. The feature(s) unexpressed in the 2nd conjunct in (2) and (3) is interpreted also thanks to the context and world knowledge, especially with CL.

(1) Mary likes pancakes and her parents ~~like~~ French toast.

(2) a. MARINA CLASS THREE GO$_{[plural]}$ JORDI WORKSHOP ONE ~~GO$_{[singular]}$~~ [LSC]
'Marina attended three classes and Jordi one workshop.'

b. JOAN$_{[person]j}$ JORDI$_{[person]i}$ WATCH $_{[person]j}$GIVE$_{[person]i}$
'Joan gave Jordi a watch.'

c. MARINA HOME$_{[location]j}$ GO$_{[location]j}$ JORDI SWIMMING-POOL$_{[location]y}$ ~~GO$_{[location]y}$~~
'Marina went home and Jordi to the swimming-pool.'

d. NAME FORGET LAST YEAR SOMEBODY MATH $_{[high/non-specific]}$TEACH-1$_{[normal]}$ JORDINA CHEMISTRY ~~$_{[normal]}$TEACH-1$_{[normal]}$~~.
'I don't remember the name but last year somebody taught me math and Jordina chemistry.'

e. MARINA BIRDS SKY$_{[high\ location]}$ LOOK$_{[high\ location]}$ JORDI DOGS ~~LOOK$_{[low\ location]}$~~.
'Marina looks at the birds in the sky and Jordi at dogs.'

(3) a. MARINA BALL BASKET CATCH-CL$_{[size/shape]}$ JORDI BALL GOLF ~~CATCH-CL$_{[size/shape]}$~~.
'Marina caught basket balls and Jordi the golf balls.'

b. BOSS MONEY $_{[high\ hierarchy]}$GIVE-1$_{[normal]}$ JORDI PLANT ~~$_{[normal]}$GIVE-1$_{[normal]}$~~.
'The boss gave me money and Jordi a plant.'

c. JORDI PEOPLE TALL HELP$_{[high\ iconic]}$ MARINA SHORT ~~HELP$_{[low\ i.]}$~~.
'Jordi helps tall people and Marina short ones.' (Jordi is short and Mary very tall).

Final classification of φ-features. Following Bošković (2008), among others, I assume the need to have both un/valued and un/interpretable features in the derivation. In Bošković analysis, valued uninterpretable features do not need to be checked and they can be deleted anyway. Moreover, only unvalued features can function as probes. Therefore, for LSC, I argue that obligatory φ-features enter the derivation as valued interpretable features on the argument NP since they are lexically specified, they contribute to its semantics and they need to be checked by the verb, where they are marked as unvalued uninterpretable features. The optional ones, instead, enter the derivation on the argument NP as valued uninterpretable features, since they do not affect the interpretation of the NP and they can get deleted without being checked. On the verb, if agreement takes place, they will enter as unvalued uninterpretable. I assume that in gapping, the verb moves to T and the internal and external arguments move to the left periphery. Once the arguments are moved, the whole TP in the second conjunct gets deleted.

Conclusion. In LSC, like in spoken languages, verbs do not require morphological identity in gapping, the syntactic identity is met before the inflection of the verbs. φ-features get ignored in the resolution of gapping and their interpretation is supported also by context and world knowledge. Finally, the underspecification of φ-features in ellipsis results to be a cross-linguistic and cross-modal property.

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Approaching the semantics of concealed causatives: Evidence from resultative constructions in English and American Sign Language (ASL)

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Introduction. Concealed causatives [1] such as resultatives (1a) and lexical causatives (1b) exhibit a form-meaning mismatch: They describe situations in which an agent intentionally brings about a change of state in an(other) entity, yet the causative meaning component is not encoded in an overt morpheme. Typically, covert causatives cannot felicitously describe indirect causation scenarios such as (1), where a periphrastic causative (1c) is acceptable.

(1) Causative situation: Mary hammers on a roof tile. The tile comes loose and falls to the ground, directly onto a piece of metal. The metal becomes flat.

a. #Mary hammered the metal flat.
b. ?#Mary flattened the metal.
c. Mary caused the metal to become flat.

The observed restriction to direct causation has been attributed to the non-overt nature of the causative meaning element. Whether a type-lifting operator introduces causation [1] or an unpronounced affix on the result adjective does the job [7], their semantics is limited to direct causation as the prototypical relation between a causing and a change-of-state event. Here I show empirical evidence from English and ASL that identifies the aspects of a causative situation that influence the concept of 'directness' and argue that both prototypical causation and divergence from it is determined by a default.

Several components of a direct causation scenario have been proposed to determine the felicitous use of concealed causatives: (a) The causee's degree of control [2]; (b) the causer's intentionality [4, 11]; (c) physical contact between causer and causee [10]; (d) a shared spatio-temporal profile [5]; and (f) adjacency of causing and change-of-state events in the causal chain [1, 3, 9]. For resultatives in particular, [5] argues that directness is characterized by temporal overlap between causing event and change of state, while [9, 1, 7] claim the decisive factor to be the absence of intervening events in the causal chain. Lastly, work on lexical causatives predicts that the causer's intention to bring about a particular change of state attenuates the effect of an intervening cause(r) [11].

Proposal. This study presents the first empirical analysis of directness constraints on resultatives in English and ASL.[1] Given that languages differ in the degree of directness required by a causative construction [11], comparing ASL and English allows us to investigate cross-linguistic and cross-modal properties of the resultative construction. Based on felicity judgment data, I propose a construct of directness that distinguishes at least two levels of indirectness: (1) temporal distance and (2) an intervening cause(r) between cause and change-of-state subevents. I further show some cross-linguistic differences in the attenuating effect of causer intentionality.

Experiments. We tested the felicity of 12 resultative constructions per language in 4 causative scenarios that varied by degree of directness (see Table 1). The 4 scenarios allowed

[1] ASL has a productive resultative construction, shown in (i) [6, 8]. The construction is monoclausal, as evidenced by the availability of subject pronoun copies (IX-addr in (i)) and rightward *wh*-movement (HAMMER SPOON FLAT WHO).

(i) IX-addr HAMMER SPOON FLAT IX-addr (polar q)
'Did you hammer the spoon flat?'

testing the effect of temporal distance (a:d), intervening cause(r)s (a:b), and intentional vs. unintentional intervening cause(r)s (b:c) on the degree of directness of a causative situation.

Causative scenario	Intentional causer	Intervening cause(r)	Temporal delay
a) Direct	+	-	-
b) Intentional intervener	+	+	-
c) Intervener	-	+	-
d) Temporal distance	+	-	+

Table 1 Causative situations by intentionality, intervening cause(r)s, and temporal distance

Two online surveys with 48 items (12 resultatives x 4 conditions) were created; 28 English speakers and 25 native signers of ASL were each assigned randomly to one of two sub-surveys to judge 24 items in randomized order on a 5-point Likert scale from "Very appropriate" to "Not appropriate at all". A sample resultative for ASL and English is provided in (2); stimuli, scenarios and instructions for the ASL survey were presented in the target language.

(2) How appropriate is the following sentence for describing what happened in (a)-(d)?
ASL: #JOHN CL:kick OPEN-door
English: John kicked the door open.

a. John wants to get into his home, but the door is stuck, so he kicks at it once and it opens.
b. John wants Mary to water his flowers while he is gone, so he programs his door to open automatically at 6pm, when Mary is supposed to stop by. John likes technological gimmicks, so he bought a door that you can only program to open at a particular time if you kick it. John kicks it to set the opening mechanism for 6pm, and when Mary gets to John's place a little after 6pm, the door is open.
c. John wants to open his front door for his wife but he has his hands full and his foot cannot reach the door. There's a ball lying nearby, so John kicks the ball at the door and it opens.
d. John is mad about something and needs to vent his anger. He kicks against a ball lying near him, and the ball accidentally hits a nearby door. The door opens.

Results & Discussion. Linear mixed models (fixed effect: causative scenario) for English and ASL revealed that resultatives were significantly more felicitous in the Direct scenario than in any other ($p < 0.0001$). Resultatives were further significantly more felicitous in scenarios with a temporal delay than in those with an intervening cause(r) ($p < 0.0001$). English and ASL differed in the effect of intentionality: A causer who intends to bring about a particular result significantly increases the felicity of a resultative with an intervening entity in English ($p = 0.008$), but not in ASL. I propose that this cross-linguistic difference can be attributed to a pragmatic constraint or 'informativeness imperative' that is stronger in ASL. The language does not allow omitting salient elements in the causal chain, even when they are used as tools. The novelty of the present findings consists in a) showing empirically that resultatives are sensitive to the level of directness of a causative situation; b) contra [9] and pro [5], temporal distance and intervening cause(r)s impact directness separately; and c) two distinct levels of directness can be distinguished since temporal distance degrades the felicity of a resultative less than an intervening cause(r). I argue that the attested cross-linguistic consistency in the weighing of factors that determine (in)directness can be attributed to the form-meaning mismatch in covert causatives: A causative semantic operator without a linguistic exponent can only express a default notion of causation, and the default dictates not only the prototype but also the differential effects of diverging from it.

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Seeing the unseen: Exh and Int

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In this paper, we show how two covert operators can become visible through their interaction with each other. Our two core observations are as follows: 1) non-intenTional verbs, like *offend* and *hurt*, allow for an ignorance inference when used with the 1P.SG subject and an epistemic indefinite (EI) as the object; whereas intenTional verbs, like *call* and *invite*, do not, making the use of EI odd. 2) This oddness is resolved when the overt *even* is added. We propose an analysis of these observations by formalizing Strawson's (1974) intuition about the singular *some* within the theory of oddness (e.g. Magri 2009, 2011).

Data: 1) Ignorance and intenTionality The singular *some* when used in a simple sentence with 1P.SG subject can have a range of meanings, (1). We are interested in (a) and will disregard (b). The ignorance inference can be shown by the infelicity of *namely* appositives (Dayal 1997) or *it was X* and the felicity of *I don't know who*, (2). However, the ignorance reading is possible only with verbs that express non-intenTional actions, like *offend*. With intenTional verbs, like *call*, the ignorance reading is unavailable ('#' marks oddness under the ignorance reading), (3). To see that intenTionality is the culprit compare (3) with (4) in which intenTionality is overridden by the addition of *accidentally*. The ignorance inference is (usually) speaker-oriented; thus, ✓*Jenny offended/called someone (I don't know who).*

(1) I offended someone.
   a. ignorance
   b. memory loss; concealing ID; subtrigging

(2) I offended someone...
   a. #namely Kyle/#it was Kyle.
   b. ✓I don't know who.

(3) #I called someone.
   a. *ignorance
   b. memory loss; concealing ID; subtrigging

(4) (pocket dialing) I accidentally called someone.
   a. #namely Kyle/#it was Kyle.
   b. ✓I don't know who.

2) 'Rescuing' by *even* *Someone* with intenTional verbs is 'rescued' when a VP-level *even* is introduced:

(5) Context: Jenny is in the hospital, seriously ill. For her, calling a person is a challenging task compared to daily routine (walking, eating). In the evening, Kyle comes to visit Jenny.
Kyle: How was your day? Jenny: Today, I was feeling much better! I even called someone.

In Jenny's response in (5), the use of *someone* does not give rise to the ignorance inference, e.g. *namely* and *it was X* are felicitous continuations, and the action is interpreted as intenTional. *Someone*, in these cases, receives a simple indefinite interpretation. (5) can also have other readings irrelevant here.

Summarizing the data, we need to explain the following patterns: 1) *Intentionality effect* - with non-intentional verbs the use of EI gives rise to the ignorance inference, but with intentional verbs the ignorance inference is absent and the use of EI is odd. 2) *'Rescuing' by* even - when *even* is added, the oddness of using EI with an intentional verb disappears.

Intentionality effect		*'Rescuing' by* even
I offended someone.	#I called someone.	I even called someone.
ignorance/non-intentional	*ignorance/intentional	*ignorance/intentional

We show that the patterns reported above are also attested in Dutch, Hebrew, Romanian, and Russian.

Analysis: The observation that the determiner *some* (in singular NPs), as opposed to *a*, signals that the speaker has some better mode of identification that she is not revealing (because of the lack of knowledge or will) goes back at least to Strawson 1974:92-3. In (6), *some* is odd because it indicates that the speaker has a more precise way of identifying the wasp that stung her, which is over informative in a normal context (e.g. being treated for a sting). Compare (6) with *I've been stung by some insect*.

(6) #I've been stung by some wasp.
   ⇝ The speaker has a better way of identifying the wasp but doesn't use it (lack of knowledge/will)

i) Capturing the ignorance inference We capitalize on this intuition and propose that the ignorance inference is derived by strengthening an identificational presupposition of *some*. More precisely, *some* in (7-a) has the presupposition in (7-b), where K_{sp} is a Matrix K operator (Meyer 2013), see e.g. von Fintel 2000 for the discussion of the status of the ignorance inference. P is a property (i.e. a mapping from a world to a set of individuals) such that a sub-property P′ is more specific than P (P′ ⊏ P) and for any P′, P, and w, if P′ ⊏ P then the value of P′ at w is a proper sub-set of the value of P at w (Condoravdi 2015). In other words, a more specific property allows for a better identification (i.e. returns a smaller set).

(7) a. I offended someone.
b. *Psp:* K_{sp}[Th(e) is identifiable by P]
(the speaker knows that the Theme of the event is identifiable by the property P)

We propose that the presupposition in (7-b) is strengthened by the Exh in (8), which is like a regular Exh (Fox 2007, Chierchia et al. 2008, Chemla and Spector 2011, a.o.) but operates on both the assertive and presuppositional components (Marty 2017, 2018). We assume that Exh is obligatorily present (Magri 2009, 2011). The strengthened meaning of the presupposition in (7-b) is shown in (9), which captures the ignorance inference discussed in Strawson 1974.

(8) *Exh for Assertive and Presuppositional Alternatives* (Marty 2017, simplified)
a. [Exh ϕ] is defined at a world w iff (i) *Psp* of ϕ and the alternatives of ϕ are true in w, and
(ii) **for all $\psi \in (\mathbf{R} \cap \mathbf{Alt}^{ie}_{psp}(\psi))$, ψ is false in w**
(all relevant innocently excludable presuppositional alternatives are false in w)
b. Whenever defined, [Exh ϕ] is true in w iff
ϕ is true in w and all its relevant innocently excludable alternatives are false in w

(9) a. I offended someone.
b. *Psp:* K_{sp}[Th(e) is identifiable by P]
c. *Alt:* $\{ K_{sp}[\text{Th(e) is identifiable by } P'] \mid P' \sqsubset P \}$ (P′ is more specific than P)
d. Exh(I offended someone) is defined iff
$K_{sp}[\text{Th(e) is identifiable by P}] \wedge \neg \{ K_{sp}[\text{Th(e) is identifiable by } P'] \mid P' \sqsubset P \}$
(the speaker knows that Th(e) is identifiable by the property P and she doesn't know that Th(e) is identifiable by any more specific property)

ii) Capturing the intentionality effect Following much discussion in the philosophical literature (e.g. Gorr and Horgan 1982, Raz 2011), we assume that an action is intentional at t if the agent of the action knows at t that this is an action by him. This knowledge includes the agent knowing the identity of the theme of the event (intuitively, taking someone else's hat by mistake does not qualify as an intentional action). Importantly, intentionality is a broader notion than agentivity (e.g. Farkas 1988, Grano 2017). Thus, offending someone is agentive, but intrinsically non-intentional (we cannot know whether the person really gets offended). Calling, on the other hand is normally interpreted as intentional, unless the context sets it otherwise. We propose that the action is interpreted as intentional when the *Int* operator is present. (10) is a partial entry for *Int*, which spells out only the presupposition relevant here.

(10) *Int* = λQ_{vt}: $K_{Ag(e)}$[Th(e) is identifiable by max(P(w))].Q
(the agent of the event knows that Th(e) is identifiable by the maximally specific property)

In the odd cases like (3), the strengthened presuppostion of *someone* conflicts with the presupposition of *Int* because Ag(e) coincides with the speaker, (11). The oddness does not arise when *Int* is absence, (4), or Ag(e) is not the speaker.

(11) a. #I called someone.
b. *Psp*^{str} *of* some: $K_{sp}[\text{Th(e) is identifiable by P}] \wedge \neg\{K_{sp}[\text{Th(e) is identifiable by } P'] | P' \sqsubset P\}$
c. *Psp of* Int: K_{sp}[Th(e) is identifiable by max(P(w))]

iii) Capturing *even* We propose that when the overt VP-level *even* is merged, Exh is not present, see Magri 2011 and the ungrammaticality of the overt *only* over *even* in **John only danced even with Mary*. In (5), the presuppositions of *even* are satisfied. The presupposition of *Int* can also be satisfied (thus the action is interpreted as intentional). Moreover, the non-strengthened presupposition of *some* does not give rise to the ignorance inference, as desired. h

Consequences In our account the ignorance inference is derived as a strengthened identificational presupposition of *some*, thus divorcing ignorance from the assertive component. We show that this account has advantages over the analyses of ignorance in terms of variation or free choice (Chierchia 2013, Alonso-Ovalle and Menéndez-Benito 2011, 2017, a.o.). In particular, it separates ignorance from the polarity sensitivity property of indefinites. This predicts that although it is common, ignorance (as detected by the intentionality effect) does not coincide with the indefinite being a PPI. We discuss two illustrative cases: 1) German *irgendein* which is arguably a PPI, but does not show the intentionality effect, and 2) Romanian *careva*, which shows the intentionality effect, but is an NPI.

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Negative coordination and its underlying structure: a cross-linguistic puzzle

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Many languages make use of special coordination markers in negative contexts (1).

(1) a) I have **neither** read the book **nor** seen the film. b) I haven't read the book **nor** seen the film.

The phenomenon remains largely understudied – case studies of such markers have been made for different languages (Aranovich 2006, Arsenijević 2011, Herburger 1999, Paperno 2014, Hendriks 2004, inter alia), but without a cross-linguistic comparison. The basic question is whether these connectives should be analyzed as conjunctions that scope over negation (2a) or as disjunctions that are in the scope of negation (2b) (these two representations being logically equivalent, by virtue of de Morgan's laws).

(2) a) $\neg p \wedge \neg q$ b) $\neg(p \vee q)$ a) <=> b)

We argue that both configurations are indeed attested in natural languages and that this is directly related to the Negative Concord status of a given language.

What complicates matters in the domain of negation is that languages are notoriously divided into those where the combination of two (or more) morpho-syntactically negative expressions yields so-called double negation, i.e. non-negative readings for the whole sentence (whence DN languages, such as Standard English or German) and those where the presence of multiple neg-words results in an interpretation with one logical negation (NC languages, for ex. French or Serbo-Croatian (S-C)). Existing accounts claim that English and German negative coordination is best analyzed as an inherently negative conjunction (Wurmbrand 2008). For a(n) (atypical) strict NC language such as French, conflicting analyses of negative coordination have been offered (disjunction in de Swart 2001, ambiguous in Doetjes 2005 and conjunction in González&Demirdache (2015)). If we exclude the option of ambiguity, would it be possible to establish a correlation between NC/DN in a given language and the conjunction/disjunction status of the negative coordinator? Evidence from another strict NC language, S-C, speaks in favor of a disjunction account of the connective (Gajić 2016), where the whole coordination has to be in the scope of a negative operator at LF. Although a large cross-linguistic study is missing, so far the results suggest that there is a direct correlation between the status of the negative elements in a language (neg-words) and the logical status of the connective. A NC language has semantically non-negative neg-words (plain indefinites in Zeijlstra 2004, existentials in Penka 2010, inter alia) and it is predicted that negative coordination is a disjunction in the scope of a negative operator. Conversely, a DN language has inherently negative neg-words (quantifiers) and the corresponding connective is a negative conjunction. Negative coordination in NC languages shares the properties of neg-words – they are only formally marked for negation and dependent on a c-commanding negative operator (possibly abstract) that will check their [uNEG] feature (Zeijlstra 2004, 2008). This is easy to model if their underlying representation is that of a disjunction under negation (2b). A conjunction analysis for NC languages would predict a reading that is (so far) not attested cross-linguistically: $\neg[p \wedge q]$ (for the example in (3) the paraphrase would be 'it is not the case that Marko likes spinach and that he like carrots', so he might like one of the two). However, introducing a whole new construction (special morphology) for a pragmatically weak reading would be at least unexpected.

(3) a. Marko ne voli (**ni**) španać **ni** šargarepu. b. Marc n'aime [pas/**ni**] les epinards **ni** les carottes.

S-C Marko $_{NEG}$ likes *ni* spinach *ni* carrots Marc $_{NEG}$.likes *pas/ni* the spinach *ni* the carrots *Fr*

'Mark (doesn't) like(s) (neither) spinach nor carrots'

On the other hand, for a DN language the principle of compositionality predicts that each marker introduces a negative operator of its own. This excludes the possibility of a disjunction-based negative coordination, because it would yield a reading that is, again, not attested cross-linguistically, and unsurprisingly so, since it is equivalent to the fore-mentioned under-informative configuration: $[\neg p] \vee [\neg q]$ (paraphrase for (1a) would be: 'I haven't read the book or I haven't seen the film').

It is possible to form negative coordination using a single marker (which introduces only the last member of the coordination), or each coordinand can be introduced by one of its own, see (3). In the NC languages described up to now, the form of these markers, when they are reiterated, is the same (for ex.

'(*ni*) XP *n i* XP' in S-C and French), in contrast to DN languages (English: *neither...nor*, German *weder...noch*).

This fits best into a syntactic agreement approach to NC, via feature checking. If *ni* carries only an uninterpretable negative feature, this explains (i) why it cannot induce sentential negation on its own (the presence of the verbal marker of negation *ne* is required in S-C and DN readings are unavailable) and (ii) why the omission of *ni* on the first coordinand wouldn't change the truth conditions. This is analogous to the behaviour of indefinite/existential neg-words (4) in the two languages.

(4) a. Ne čujem nikoga. *S-C* b. Je n'entends (*pas) personne. *Fr*
NEG hear$_{1Sg.PRES}$ NEG-person$_{ACC}$ I NEG'hear$_{1Sg.PRES}$ *pas* NEG-person
'I hear nobody'

That both S-C and French *ni*-coordination can be employed in fragment answers (to the extent that this is pragmatically felicitous) further supports the analogy with neg-words:

(5) a. A: Ko je došao na žurku? -B: Ni Marko ni Lea. b. A: Qui est venu à la fête? -B: Ni Marc ni Léa.
A: Who came to the party? -B: Neither Mark nor Lea.

Adopting arguments presented in Gajić (2016) for S-C, revisited diagnostics for distinguishing a conjunction from a disjunction in French show that *ni* is indeed a disjunction. In (6), a necessity modal which scopes below negation is present in the clause, and for most of the native speakers, (6) can only mean 'it is not the case that you are required to read *Germinal* or *L'Assommoir*', whereas the reading 'you are not obliged to read *Germinal* and you are not obliged to read *L'Assommoir*' ($[\neg\Box p]\wedge[\neg\Box q] = \neg[[\Box p]\vee[\Box q]]$) is not available independently from the former reading ($\neg\Box[p\vee q]$).

(6) Tu n'es obligé de lire ni *Germinal* ni *L'Assommoir*. *Fr*
you NEG'AUX3Sg obliged to read *ni Germinal ni L'Assommoir*
'You don't have to read *Germinal* or *L'Assommoir*' $\neg\Box[p\vee q]$

Furthermore, (7) is judged as false in a context that supports only an unambiguous conjunctive interpretation ('it seems that it is often not the case that she goes to yoga and that it is often not the case that she goes to the pool', which would correspond to $S>[Q_{adv}\neg p]\wedge[Q_{adv}\neg q]$).

(7) Elle semble souvent n'aller ni au yoga ni à la piscine. *Fr*
she seems often NEG'go$_{INF}$ *ni* to yoga *ni* to the swimming-pool
'It seems that she often doesn't go to yoga or to the swimming pool' $S>[Q_{adv}>\neg[p\vee q]]$

Another argument comes from the fact that coordination of full TPs or CPs is not possible for French and S-C *ni*, whereas it is acceptable in a DN language. The counterparts of English 'Neither has Peter understood the theorem, nor could Maria follow the proof' (cf. also Lechner 2000) are bad:

(8) a. ??? Ni Pera nije razumeo teoremu, ni Mara nije mogla ispratiti dokaz. *S-C*
ni Pera NEG.AUX3Sg understand$_{PART}$ theorem *ni* Mara NEG.AUX3Sg can$_{PART}$ follow$_{INF}$ proof
b. ?* Ni Pierre n'a compris le théorème ni Marie ne peut suivre la preuve. *Fr*
ni Pierre NEG·AUX3Sg understand$_{PART}$ the theorem *ni* Marie NEG can follow$_{INF}$ the proof

(8a) sounds somewhat better than (8b), but this is probably because S-C *ni* can also serve as a focus particle ('(n)either'). Finally, some sort of V2-effect, or subject-auxiliary inversion, is obligatory in English both in the coordinand introduced by *neither*, as well as *nor* – but it is absent from both French and S-C. The last two points indicate that negative coordination in English involves bigger structures (CPs), whereas French and S-C *ni* coordinates on a lower level.

We thus maintain that *ni* in both S-C and French is a disjunction in the scope of a negative operator. Importantly, *ni* in its surface position only signals the presence of a disjunction, it does not represent the connective itself. This is relevant in view of the facultative reiteration of the marker – even when more than one marker is present on the surface, the LF has only one logical disjunction. In terms of Mitrović & Sauerland (2014) decomposed coordination, *ni* would represent μ, whereas the J (coordinator) is null.

A remaining problem for this approach is the contrast between the non-iterated vs. iterated *ni* in French, i.e. the fact that, when *ni* is introducing only the last coordinand, it is compatible with *pas*, which does not hold of other neg-words in French. However, reiterated *ni* is incompatible with *pas*.

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Pulling a pretence rabbit out of the hat

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Idioms are among the most obvious cases of form-meaning mismatches in natural language. The idiomatic meaning of an idiom is not at all identical to the literal meaning of the morphosyntactic string that the idiom consists of. Over the years, the focus of the formal study of idioms has shifted from the irregularity of idioms to the parallelisms with non-idiomatic combinations in terms of meaning composition (Nunberg et al., 1994; Kay et al., ms.; Lichte & Kallmeyer, 2016; Corver et al., 2016). These developments have made it possible to discuss cases like (1-a), where the idiom (here *pull the rabbit out of the hat*, meaning 'suddenly present something as a solution to a problem' [Oxford Idioms Dictionary, 2001]) can be decomposed, and the pronoun *it* can refer to the idiomatic interpretation of *rabbit* as a 'solution' rather than as an animal. However, one of the most intriguing aspects of idioms has not yet received a lot of attention: the simultaneous availability of the idiomatic and the literal meaning, as shown in (1-b). We will use the term *idiom extension* for these cases in which there is an elaboration on the literally described situation, but we can interpret this with respect to the idiomatic meaning.

(1) The CEO pulled a rabbit out of the hat
   a. but it was not elaborate enough.
   b. but it left droppings everywhere.

Egan (2008) discusses such idiom extensions from the perspective of *pretence theory* (Walton, 1993). We will provide a concrete formalization of Egan's basic idea, and show how this can be integrated into recent formal theories of idioms.

Pretence According to Egan (2008), every idiom is associated with a *pretence*: a fiction through which we interpret the literal meaning of the idiom. For instance, the idiom *kick the bucket* is associated with the following pretence (Egan, 2008, 387): *if someone dies, pretend that there's some salient bucket that they kicked*. Thus, if someone utters *Sandy kicked the bucket*, and we know the pretence is in force, we can infer that Sandy died.[1]

This indirect analysis runs into problems with ordinary uses of idioms, as the idiomatic meaning is usually available before the literal meaning (Gibbs, 1986), and there are idioms that lack a literal meaning (Soehn, 2006). In addition, (Egan, 2008, 397–401) only sketches how the particular idiomatic pretences are connected to the form of words used, and thus does not offer a very convincing account of the fixedness of many idioms (where reordering words or replacing them by synonyms leads to a loss of idiomaticity). If each idiom has a certain pretence associated with it, where is that association stored?

However, data such as (1-b) show that we do need a pretence-like mechanism in at least some cases.[2] To interpret (1-b), we must pretend that if someone unexpectedly presents a solution to a problem, they pull a rabbit out of a contextually salient hat – this is the pretence provided by the core use of the idiom in the first line of (1). But we must also pretend that the rabbit has left droppings everywhere. Now, what must be true in the actual world to make this true in the pretence? Droppings are conventionally perceived as something dirty and unpleasant, so when we link this back to the actual situation, it probably means that the solution under discussion, which corresponds to the rabbit, had some unpleasant side effects to it.

[1] All linguistic expressions have the potential to be interpreted through a pretence. Walton (1993) and others argue that this is how metaphors work, for instance. What makes idioms special is that they are associated with a conventionalised pretence, which is triggered by the words that are used.

[2] Idiom extensions, like (1-b), are different from the 'core' uses of idioms, like in the first line of (1), and continuations relying on the idiomatic rather than the literal meaning of the idiom, like in (1-a), as idiom extensions appear to involve an additional interpretive effort (cf. Egan, 2008, 408, endnote 21).

Analysis We propose a model-theoretic implementation of Egan's pretence approach to idioms in the form of a *pretence relation*, μ. This pretence relation relates situations in which the idiomatic meaning holds to situations in which the literal meaning holds. We can speak of a pretence relation iff there are situations, an actual situation s_a and a fictional situation s_f, which are related by μ in such a way that the idiomatic meaning is supported by s_a and the literal meaning is supported by s_f. We take μ to be an *analogical relation* in the sense of Structure-Mapping Theory (Gentner & Maravilla, 2018), whose core is given by the pretence associated with the idiom. This means that μ relates salient properties of the elements in the *base* (the fictional situation) and the *target* (the actual situation). In addition to the elements of the situations provided by the pretence of the idiom, μ can also contain elements that are added to the base by analogical reasoning. In that case, every such additional object, property or relation must have a correspondent in the target. The relevant pretence relation for our running example μ_{rabbit} is sketched in (2).

(2) For any situations s_a and s_f: $\langle s_a, s_f \rangle \in \mu_{\text{rabbit}}$ iff μ_{rabbit} is an analogical relation such that $\forall x \forall y(\textbf{solution}_{s_a}(y) \wedge \textbf{present}_{s_a}(x, y)) \leftrightarrow (\textbf{rabbit}_{s_f}(y) \wedge \textbf{pull-out-of-hat}_{s_f}(x, y)))$

When we encounter an idiom extension as in (1-b), we assume that there is a fictional situation s_f in the idiom-specific pretence relation which supports the literal meaning of the full sentence. Apart from this, s_f should be minimal, i.e., include as little as necessary to support the literal meaning of the sentence. In (1-b), the rabbit left droppings in s_f, something unpleasant. With μ_{rabbit} being the analogical relation defined in (2), there is a 'solution' in s_a that is analogical to the 'rabbit' in s_f, and thus there is an unpleasant side effect of the solution in s_a, just as there is an unpleasant side effect of the rabbit in s_f.

This analysis correctly predicts that (3) contains a less felicitous extension than (1-b). In our figurative situation s_f, the relevant rabbit can be assumed to have purple ears, but without a marked context, we have a very hard time finding an analogical property in s_a that can be related to this figurative situation by μ_{rabbit}.

(3) #The CEO pulled a rabbit out of the hat, but its ears were purple.

For core uses of idioms, and continuations relying on the idiomatic rather than literal sense such as (1-a), no reference to the pretence relation is necessary. Following the formal idiom literature, we assume that idiom parts may be associated with idiom-specific meaning and, consequently, the pronoun *it* in (1-a) can refer to the idiomatic meaning of *rabbit*, i.e., 'solution'. The lexical specification of an idiom will, however, also contain the specification of its pretence relation, making it available in idiom extensions like (1-b).

Conclusion The approach presented here is not only more concrete than the pretence-based theory of idioms in Egan (2008), but it can also be integrated into current formal analyses of idioms and thereby avoids the above-mentioned problems of Egan's account, while conserving the major insights of the pretence theory. In our approach, an idiom extension is interpreted under its literal meaning within a fictional situation. We are then able to infer, via the pretence relation made available by the idiom, how the sentence also restricts the actual situation. This permits a compositional account of these apparent form-meaning mismatches.

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With or without: How semantic bleaching causes form-meaning mismatches – The German particle *so* as a test case

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The German particle *so* is described as a multifunctional element with a number of different usages (cf., e.g., Ehlich 1987; Auer 2006). As a full lexical item, it has a core modal indexical meaning 'such a', 'in this way' and triggers a deictic procedure, as illustrated in (1) (capitals indicate main stress). From this starting point, other usages of *so* (quotative marker, vagueness marker, hedge) can be arranged along a pragmaticalisation path on which *so* gradually loses lexical semantics and evolves into a semantically empty pragmatic focus marker (Wiese 2011), as illustrated in (2). In this usage, it does not contribute any semantic content but is reduced to its information-structural function to highlight the focus constituent. As Wiese (2011) has shown in experimental data, focus marking *so* has a significant impact on the identification of the focused element in a sentence.

(1) wolln wa uns nich AUCH **so**=nen rucksack kaufen?
want we us not also such=a backpack buy? *(data from KiDKo, Mo05WD)*[1]
'Don't we want to buy a backpack like this, too?'

(2) JEder geht JEdem fremd. soll das ***so*** LIEbe sein? *(data from KiDKo, MuH19WT)*
everybody goes everybody foreign. shall this like love be?
'Everybody is cheating on everybody. Is this supposed to be, like, love?'

While words can commonly be understood as a combination of phonological, syntactic and semantic information that is stored in long term memory (cf. e.g. Jackendoff 2002, 2007), the focus marker *so* can be analysed as a defective word which contains phonological and syntactic

[1] The KiezDeutsch-Korpus (KiDKo) is an open-access, multimodal, annotated corpus of spontaneous, informal conversations in peer-group situations from adolescents in mono- and multilingual communities in Berlin. http://www.kiezdeutschkorpus.de

but no semantic information. Following up on this, I adopt the perspective of a Tripartite Parallel Architecture (ibid.), which assumes three autonomous, generative modules (phonology, semantics, syntax). These modules interact via interfaces and connect for language production and comprehension. From such a perspective, such defective elements as focus marking *so* cause a mismatch at the syntax-semantics-interface when integrated into a sentence.

In my presentation, I argue that the semantically bleached focus marker *so* leads to non-canonical form-meaning mappings, in contrast to *so* as a modal indexical with full lexical meaning. I show that these have an impact on language processing, drawing on results from two studies, a speeded acceptability judgement task and a self-paced listening task, that capture reaction times for minimal pairs with *so* as a modal indexical and as a focus marker. By doing so, my talk contributes to our understanding of how form-meaning mismatches affect language processing and how our language processing device links information from the three mentioned linguistic subsystems in order to (de-)compose meaning.

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On the Insufficiency of Form to Determine Meaning

Callum Hackett

The idea that form is sufficient to determine the semantics of linguistic expressions is encapsulated in the principle of compositionality. Intuitive notions of compositionality have a long history, though its first formulations in modern theory can be found in Chomsky's *Aspects* (1965) and Montague's 'Universal Grammar' (1970). In *Aspects*, building on the work of Katz & Fodor (1963), Chomsky describes the architecture of a speaker's linguistic competence as containing a syntax that arranges morphemes into hierarchical structures that receive both phonetic and semantic interpretations. On these terms, there is a direct and transparent relation between form and meaning effected by our syntactic competence.

Although much has changed since, this core understanding of the relationship between form and meaning—the T-model—is still mainstream today, with it often labelled a 'virtual truism'. However, even within frameworks that endorse the cognitive necessity of compositional meaning (as recognised most forcefully in Fodor 1975), the idea that syntactic structure *itself* relates form and meaning through an interface with semantics has had its detractors. Indeed, even Fodor, who played such a significant role in linguists trying to ground syntax with respect to semantics, eventually came to believe that "quite possibly, English has no semantics, some appearances to the contrary notwithstanding" (2008:198).

In this talk, I will examine certain problems in the philosophy of language, linguistic theory and language acquisition to shed light on Fodor's seemingly bizarre conjecture and, in so doing, I will argue that the T-model of syntax is undermined in such a way that we cannot regard the compositional meanings of expressions as being properties of *the expressions themselves*. Instead, all words and sentences must be regarded as non-compositional approximations of compositional meanings, which only receive their compositional interpretations through discourse pragmatics, and we must reconfigure our architecture of the language faculty to account for syntax's underdetermination of the form-meaning relation.

A useful way into these issues is to appreciate how *Aspects* established the importance of compositionality for linguistic theory. In particular, it's worth noting that the principle of compositionality was absent from *Syntactic Structures* (1957) and not as a mere lacuna — there, Chomsky argued *against* a direct relation between structure and meaning, believing that only the *use* of linguistic expressions could fix that relation. As such, I will characterise the essential differences of the *Syntactic Structures* and *Aspects* models, so that we can properly understand the theoretical drive behind the introduction of the T-model.

The key insight here is that the ability of syntax to relate structured form to compositional meaning relies upon the properties of the elements that it structures. While the terminal elements in *Syntactic Structures* were said to have only phonological content, ruling out the possibility of a semantic interface, *Aspects* argued for terminal elements with phonological as well as semantic content, so that syntax could have both a phonetic and a semantic interface. In other words, for T-model syntax to function, we must have lexicons that contain lists of morphemes with (minimally) phonological and semantic content.

While it is intuitive to regard the lexicon as being *necessarily* so structured, so we can encode and decode semantics by looking up entries in our mental dictionaries (the coding metaphor reinforcing the view that form and meaning are transparent), note that a lexicon is just *not* required to explain how we use and understand words. As children, we are born without any lexicon at all, as we must acquire one according to experience, in which case we must naturally have some way of knowing the meanings of words *without* a lexicon to specify them, and there is no reason to suppose we start to need one once we have filled it.

The reason why such a lexicon has been assumed since *Aspects* is not because it permits semantic coding but rather because it records *context-independent* form-meaning relations for our context-independent syntactic competence to operate upon. In other words, it is entirely derivative of the supposition that syntax has a phonetic and a semantic interface that we model lexical items as having phonetic and semantic content. Yet, since at least Wittgenstein (1953) (and, somewhat less rigorously, the German idealist philosophers of the nineteenth century), some have argued that it is simply impossible for words to have context-independent semantics, ruling out the lexicon that the T-model needs to function.

Recently, in theories more sympathetic to the generative program, the evacuation of semantics from the lexicon has been embraced to a greater or lesser extent in varieties of relevance theory (e.g. Recanati 2004; Carston 2013) and exo-skeletal syntax (Borer 2013 argues that lexical items have no intrinsic semantics but that they still acquire context-independent meaning via syntax). Here, I will present a new argument from observations of language acquisition, based on an attempt to reconcile generative theory with Fodor's later views, to show that we are able to *use* words to refer to compositional concepts given our pragmatic capacities, but in light of an essentially Humean problem of induction applied to the arbitrariness of the sound-meaning relation, we are psychologically incapable of entering context-independent associations of form and meaning into a lexicon given our limited childhood experience. This is analogous to the poverty of stimulus in syntactic structure, but while syntax has an innate grounding, sound-meaning relations do not. It follows from this that T-model lexical items cannot exist and so nor can the T-model's interfaces.

To conclude, I will offer some remarks on why T-model syntax has seemed so promising despite the impossibility of the lexicon it requires and I will suggest how we can salvage the many valuable post-*Aspects* discoveries about syntax. In particular, I will argue that standard analyses of syntactic structure are really analyses of *purely* semantic structure, with morphemes standing as proxies for concepts—as morphemes have no context-independent meaning, they cannot genuinely participate in what purport to be context-independent structural representations. As such, we must consider generative theory to be a theory of meaning and we must develop a new theory of meaning's relation to form.

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